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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,396	07/18/2003	Hing "Thomas" Y. To	42P8816C	4650

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EXAMINER

LAU, TUNG S

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/623,396

Applicant(s)

TO ET AL.

Examiner

Tung S Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 2 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Manlove et al. (U.S. Patent 5,699,024).

Regarding claim 1:

Manlove discloses cells of an integrated circuit (IC) comprising: a method for current calibration of a plurality of I/O setting a global control value (Col. 2-3, Lines 55-35); providing the global value to the plurality of I/O cells to cause each of the plurality of I/O cells to output a logic voltage at a corresponding output pads and for each I/O cell (Col. 2-3, Lines 55-35); feeding back the logic voltage at the corresponding output pad to a comparator (Col. 1, Lines 20-47, Col. 2-3, Lines 55-35). comparing the logic voltage at the corresponding output pad with a reference voltage (Col. 2-3, Lines 55-35), and sinking current at the corresponding output pad based on result of the comparing (Col. 2-3, Lines 55-35, Col. 5-6, Lines 36-39).

Regarding claim 6:

Manlove discloses a method comprising: setting a global control value provided to the-a plurality of I/O cells to cause each of the plurality of I/O cells to output a

logic voltage on a corresponding output pad (Col. 2-3, Lines 55-35); then, for each of the plurality of V0 cell: feeding back the logic voltage at the corresponding output pad to a comparator: setting a local value in a register device associated with the V0 cell in response to the global control value (Col. 1, Lines 20-47, Col. 2-3, Lines 55-35); comparing the logic voltage with a reference voltage (Col. 2-3, Lines 55-35), and setting a local value in a register device associated with a corresponding I/O cell in response to the a global control value and result of-the comparing of the logic voltage and the reference voltage (Col. 2-3, Lines 55-35, Col. 5-6, Lines 36-39).

Regarding claim 3, Manlove discloses enabling additional driver bits to sink more current at the corresponding output pad if the logic voltage is higher than the reference voltage And disabling additional driver bits to sink less current at the corresponding output pad if the logic voltage is lower than the reference voltage (Col. 2-3, Lines 55-35fig. 3, unit 104); Regarding claims 4, 8, Manlove discloses sinking current at the corresponding output pad comprises modifying a local value 'stored in a register device associated with a corresponding I/O cell based on the comparing of the logic voltage and the reference voltage (Col. 2-3, Lines 55-35fig. 3, unit 104); Regarding claim 7, Manlove discloses enabling additional driver bits to modify the local value in the register device associated with the corresponding I/O cell in response to the comparison of the logic voltage and the reference voltage to sink more current at the corresponding output pad (Col. 5-6,

Lines 35-39); Regarding claim 9, Manlove discloses shifting one and zero to modify local value (fig. 3, unit 174, 176).

### ***Claim Objections***

2. Claims 2 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to teach sinking current until the logic voltage at the output and the reference voltage are substantially equal, the register device is a counter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1, 3-4 and 6-9 have been considered but are moot in view of the new ground(s) of rejection. However, applicant's arguments filed 1/19/2005 have been fully considered but they are not persuasive.
  - A. Applicant's arguments with respect to claims 1, 3-4 and 6-9 have been considered but are moot in view of the new ground(s) of rejection.

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306

Art Unit: 2863

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL



John Barlow  
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